Attorney Docket No. 041358-0342

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Steven A. SUNSHINE et al.

Title: SYSTEM FOR MEASURING AND TESTING A PRODUCT USING ARTIFICIAL OLFACTOMETRY AND ANALYTICAL DATA

Appl. No.: 09/802,354

Filing Date: 03/09/2001

Examiner: G. O'Connor

Art Unit: 3627

APPEAL BRIEF UNDER 37 C.F.R. § 41.37 AND RESPONSE TO SECOND NOTICE OF NON-COMPLIANT APPEAL BRIEF (MAILED 12/20/06)

MAIL STOP APPEAL BRIEF - PATENTS
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Sir:

Under the provisions of 37 C.F.R. § 41.37, a credit card payment form in the amount of $500.00 covering the 37 C.F.R. 41.20(b)(2) appeal fee has been previously filed in this case (on March 21, 2006). If an appeal fee is deemed to be necessary, authorization is hereby given to charge any deficiency (or credit any balance) to the undersigned deposit account 19-0741.

1.   REAL PARTY IN INTEREST

The real party in interest is Smiths Detection, Inc. (with a principle place of business in (Pasadena, California)), which is the successor in interest in this patent application to the assignee of record, Cyrano Sciences, Inc., a corporation under the laws of the State of Delaware.

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences that will directly affect, be directly affected by or have a bearing on the present appeal, that are known to appellant, the assignee, or the appellant's patent representative. The Related Proceedings Appendix (Section 11), attached hereto, states "None".

3. STATUS OF CLAIMS

Claims 1-8 and 56-58 are pending, claims 9-55 having been canceled. Claims 1-8 and 56 are rejected and are the subject of this appeal. Claims 57 and 58 remain withdrawn from further consideration for being drawn to a non-elected invention.

4. STATUS OF AMENDMENTS

No after-final amendments have been filed.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The independent claim 1 recites a system for recommending a consumer product selection across a network. See figures 1 and 2 and its description in the text of the specification.

Independent claim 1 recites a recommendation engine including a computing module that determines a difference between a plurality of consumer products having a plurality of descriptors by differentiating between at least one descriptor of each of the plurality of consumer products and providing the difference to a second computing module (a sorting module). This feature is supported by the recommendation engine 100 in figure 1 and 215 in figure 2 which provides a determined difference to a sorting module 218 (in figure 2). See, for example, page 6, lines 15-24. See also page 8, lines 17-20 which describes that each of the consumer products (of the plurality of consumer products) provides at least one different descriptor when comparing a first consumer product from another consumer product and this feature allows differentiation among the consumer products.

Claim 1 also recites a descriptor module that is configured to receive a human descriptor trait (HDT) input regarding the plurality of descriptors of at least a sampled consumer product from at least two independent consumers at two independent nodes, respectively, on the network. Descriptor module 216 (in figure 2) is configured to receive descriptors where the descriptors represent similarities in human perception. See, for example, page 6, lines 28-34. These descriptors may be HDTs as described extensively on page 8, lines 21 to page 9, line 16. The independent consumers who provide these HDT inputs are located at independent nodes on a computing network as described in figure 5 and its description on page 15, lines 8-17.

Claim 1 also recites a second computing module (a sorting module) that is coupled to the recommendation engine and sorts between each of the consumer products to form at least two classes for the plurality of consumer products. The sorting module 218 in figure 2 and its description on page 8, line 17-20 discloses that it sorts each of the consumer products using, for example, a similarity of sense. See also figure 4, step 440 and its description on page 14, lines 16-19.

Claim 1 also recites a third computing module (a correlation module) that is coupled to the recommendation engine and determines, for each of the consumer products, a correlation between the at least two classes and each of the plurality of descriptors including the HDT descriptors and also assigns a weighting term for each of the descriptors based on the descriptors ability to sort the between the at least two classes. The correlation module 220 (in figure 2) and the disclosure, for example, on pages 10, line 11 to page 12, line 15 discloses several details of the correlation module and its assigning of a weighting term for each of the descriptors based on the descriptors ability to sort between the at least two classes. See also step 470 in figure 4 and its description on page 14, lines 21-22 and figure 9 and its description on page 19, line 28 to page 20, line 9.

Claim 1 also recites a computing module (coupled to the recommendation engine) that cooperatively operates on the weighting terms to provide a recommendation. See, for example, figure 8 and its description on page 17, line 21 to page 19, line 28 for a description of the processing flow on how a computing module (coupled to the recommendation engine) uses the weighting terms to provide a recommendation to a consumer.

The subject matter recited in the withdrawn independent claims 57 and 58 are supported by disclosure in the same manner as the corresponding features discussed above with respect to independent claim 1.

6.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

In the final Office Action dated December 22, 2005, claims 1-8 and 56 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,370,513 ("Kolawa").

7.   ARGUMENT

It is respectfully submitted that the applied rejection of the pending claims is erroneous for at least the following reasons.

I. APPLIED PRIOR ART DOES NOT MAKE A PRIMA FACIE CASE OF OBVIOUSNESS

Amended independent claim 1 recites, *inter alia*, a system that recommends a consumer product selection across a network to a consumer, including: (1) a descriptor module that is configured to receive human descriptor trait (HDT) descriptor input regarding the plurality of descriptors of at least a sampled (i.e., actual or existing) consumer product from at least two independent *consumers* at two independent nodes, respectively, on the network; and (2) a third computing module, that determines for each of said plurality of consumer products a correlation between said at least two classes and each of said plurality of descriptors including the received HDT descriptor input. Neither of these two recited features is disclosed or suggested by the applied prior art.

Specifically, nowhere the does Kolawa teach or suggest independent *consumers* providing human descriptive trait (HDT) input regarding a *sampled* consumer product over a network. With respect to this feature, the office action asserts that Kolawa teaches retailers providing "information about *potential* products (i.e., not sampled or actual products) and services which may be recommended *to the users* of the system." *See* col. 2, lines 2-6 of Kolawa. That is, Kolawa only teaches that retailers may provide information about *potential* products or services which may then be recommended to the users of the system. Therefore,

there is absolutely no teaching of <u>receiving input from independent consumers over a network</u> <u>on human descriptive traits of a sampled consumer product</u>.

The office action then relies on official notice to cure this deficiency in Kolawa. The office action states that receiving feedbacks/reviews of products from customers is well known to those of ordinary skill in the art and hence official notice is taken of that fact. However, applicant disagrees that official notice can be taken of the feature missing in Kolawa that <u>receiving input from(1)</u> *independent consumers over a network* on (2) *human descriptive traits* of (3) a *sampled* consumer product in the context of the claimed recommendation system. If the examiner is to maintain this rejection, the examiner is respectfully requested to cite to a reference as required by MPEP §2144.03.

Furthermore, there is not sufficient motivation to combine the official notice assertion with the Kolawa reference. Kolawa teaches a system in which *user* (or consumer) preference vector is developed and compared to a separately created *product* vector and any feedback from the user refines the *user* preference vector. Updating the product vector directly based on HDT descriptor input from <u>sampled</u> consumer products is not taught or suggested by the user. In fact, Kolawa teaches updating the user preference vector from user input and modifying Kolawa in the manner suggested would impermissibly change the principle of operation of Kolawa. Therefore, the only basis to motivate the combination appears to be based on using the applicant's invention as a road map (i.e., by using impermissible hindsight reconstruction).

Accordingly, applicant submits that independent claim 1 is patentable over the prior art of record. The remaining independent claims (currently withdrawn) are also allowable for similar reasons as claim 1. Likewise, withdrawn independent claims 57 and 58 are believed to be patentable over the applied prior art for the same reasons as discussed above with respect to independent claim 1.

The dependent claims are also patentable for at least the same reasons as the independent claims on which they ultimately depend. In addition, they recite additional patentable features when considered as a <u>whole</u>.

II.   REBUTTAL OF "RESPONSE TO ARGUMENTS" IN FINAL OFFICE ACTION

In paragraphs 8 and 9, the office action states that it is conceded that Kolawa dopes not disclose consumers posting the HDT input. Rather, the office action asserts that official notice provides this missing feature and when requested to provide a reference, the office action continues to fail to provide such a reference. As stated in MPEP 2143.03 "It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." The specific use of the HDT's including, for example, the electronic nose signature of a consumer product (in claim 56) in context of network based recommendation system is certainly not capable of instant and unquestionable demonstration as being well known and as such, official notice is erroneously applied in the rejections formulated in the final office action.

With respect to the assertions in paragraphs 9 and 10, the office action alleges that combination of having end users/consumers post their evaluation/descriptions of the products would be obvious "because other customers would tend to accept such opinions as being less biased." *First*, the claimed invention relates to specified computing on user input in a recommendation system and not "posting" of such user input as such. *Second*, this motivation would alter the principle of operation of Kolawa where the user preference vector is compared to a product vector and any feedback by the user is used to refine the *user* preference vector. That is, modifying Kolawa to use the user input to change the product vector would impermissibly change the principle of operation of Kolawa and is impermissibly only motivated by the present applicant's disclosure. In paragraph 11, the office action acknowledges use of hindsight but states that using "only knowledge within the level of the ordinary skill at the time when the claimed invention was made," allows reconstruction. However, it should be noted that such "reconstruction" is never proper when it alters the principle of operation of primary reference based on official notice (with no supporting reference nor any evidence of the what is within the level of the ordinary skill when the claimed invention was made). Accordingly, applicants respectfully submit that the applied combination is erroneous and should be withdrawn.

8. CONCLUSION

In view of above, appellants respectfully solicit the Honorable Board of Patent Appeals and Interferences to reverse the rejections of the pending claims and pass this application on to allowance.

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicants hereby petition for any needed extension of time.

Respectfully submitted,

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9.   CLAIMS APPENDIX

LIST OF THE PENDING CLAIMS (WITH STATUS IDENTIFIERS)

1.   (Previously Presented) A system that recommends a consumer product selection across a network to a consumer, said system comprising:

a recommendation engine comprising a first computing module that determines a difference between a plurality of consumer products having a plurality of descriptors by differentiating between at least one descriptor of each said plurality of consumer products and providing said difference to a second computing module;

a descriptor module that is configured to receive human descriptor trait (HDT) descriptor input regarding the plurality of descriptors of at least a sampled consumer product from at least two independent consumers at two independent nodes, respectively, on the network;

the second computing module, coupled to said recommendation engine, that sorts between each of said consumer products to form at least two classes for said plurality of consumer products;

a third computing module, coupled to said recommendation engine, that determines for each of said plurality of consumer products a correlation between said at least two classes and each of said plurality of descriptors including the received HDT descriptor input, said third computing module assigning a weighting term for each of said plurality of descriptors based upon each of said descriptor's ability to sort between said at least two classes; and

a fourth computing module, coupled to said recommendation engine, that cooperatively operates on said weighting terms to provide a recommendation.

2.   (Original) The system according to claim 1, wherein said consumer product is a member selected from the group consisting of cosmetics, tobacco, perfume, cologne, liquor, liqueurs and consumable liquids.

3.   (Original) The system according to claim 2, wherein said consumer product is perfume.

4.   (Original) The system according to claim 1, wherein each of said plurality of descriptors is a member independently selected from the group consisting of intrinsic descriptors and extrinsic descriptors.

5.   (Original) The system according to claim 1, wherein each of said plurality of descriptors are in a digital format.

6.   (Previously Presented) The system according to claim 5, wherein said digital format is derived from a member selected from the group consisting of a stream of data and static data.

7.   (Original) The system according to claim 1, wherein said correlation between the plurality of consumer products and said at least two classes is generated using cluster mapping.

8.   (Original) The system according to claim 1, wherein said network is the Internet.

9-55.   (Canceled).

56.   (Previously Presented) The system according to claim 1, wherein the descriptor module is configured to further receive descriptor input including descriptors from an electronic nose signature of a consumer product.

57.   (Withdrawn) A computer implemented method that recommends a consumer product selection across a network to a consumer, comprising:

determining a difference between a plurality of consumer products having a plurality of descriptors by differentiating between at least one descriptor of each said plurality of consumer products and providing said difference to a computer module;

receiving human descriptor trait (HDT) descriptor input regarding the plurality of descriptors of a sampled consumer product from at least two independent consumers at two independent nodes, respectively, on the network;

sorting between each of said consumer products to form at least two classes for said plurality of consumer products;

determining for each of said plurality of consumer products a correlation between said at least two classes and each of said plurality of descriptors including the received HDT descriptor input, and assigning a weighting term for each of said plurality of descriptors based upon each of said descriptor's ability to sort between said at least two classes; and

cooperatively operating on said weighting terms to provide a recommendation.

58.   (Withdrawn) A computer program product, on a computer readable medium that when executed on a computing system causes the computing system to recommend a consumer product selection across a network to a consumer, comprising:

code that determines a difference between a plurality of consumer products having a plurality of descriptors by differentiating between at least one descriptor of each said plurality of consumer products and providing said difference to a computer module;

code that receives human descriptor trait (HDT) descriptor input regarding the plurality of descriptors of a sampled consumer product from at least two independent consumers at two independent nodes, respectively, on the network;

code for sorting between each of said consumer products to form at least two classes for said plurality of consumer products;

code for determining for each of said plurality of consumer products a correlation between said at least two classes and each of said plurality of descriptors including the received HDT descriptor input, and assigning a weighting term for each of said plurality of descriptors based upon each of said descriptor's ability to sort between said at least two classes; and

code for cooperatively operating on said weighting terms to provide a recommendation.

10.   EVIDENCE APPENDIX

None.

11.   RELATED PROCEEDINGS APPENDIX

None.